EN

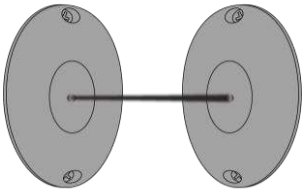
TOPENS®

TC102

Infrared Photocell Sensor User Manual

Product Description

The sensor uses an infrared beam to detect objects. When integrated with an automatic gate or door opener system, it provides an additional layer of safety. If the beam is obstructed, it signals the gate or door to stop or reverse automatically, preventing accidents and damage.



1 SPECIFICATIONS

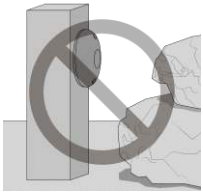
Detection Method: Interrupt Detection
Beam Type: Infrared Light
Max. Sensing Range: 20m (65ft.)
Operating Voltage: 12-24VDC / VAC
Rated Current: RX 15mA - TX 30mA
Output: Relay SPDT NO or NC
Wave Length: 940nm
Frequency: 1.92KHz
Beam Transmit Angle: <10°
Response Time: 10ms (Max)
Protection Degree: IP44
Output Capacity: 1A max 30V
Working Temperature: -20°C~ +50°C (0°F to 120°F)
Dimension of the Sensor: 75 x 48 x 30mm (3 x 1.9 x 1.2")

2 WHAT'S IN THE BOX

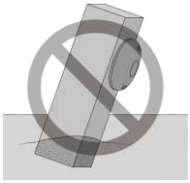
- 1 x Emitter
- 1 x Receiver
- 1 x Mounting Screws
- 2 x Watertight O-ring Seal

CE

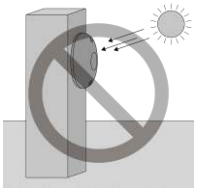
3 IMPORTANT INSTALLATION NOTES



Remove all obstructions between the emitter and the receiver.



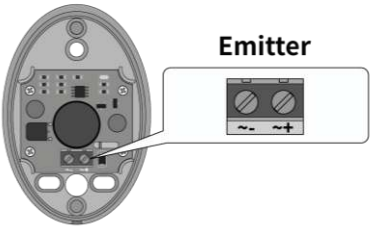
Do not install on unstable surfaces.

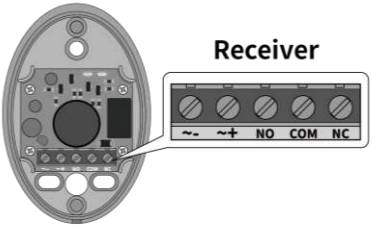


Avoid strong light shining directly on the sensor.

4 WIRE CONNECTION WITH TOPENS GATE OR DOOR OPENER

- For both the emitter and the receiver, "~ +" and "~ -" terminals are power input for 12-24VDC or 12-24VAC.
- For the receiver, "NO" , "COM" and "NC" terminals are relay output. "NO" and "COM" is for normal open contact and "NC" and "COM" is for normal close contact.
- For wire connection, please refer to the connection diagram in the Installation Manual specific to your gate or door opener model.
- Make sure the power is OFF before making any wire connections.





Notes:

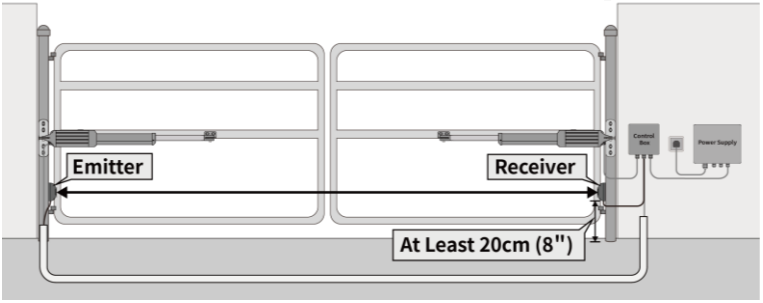
- *Connect the emitter to gate or door opener with a 2C x 0.3 mm² (22AWG) cable. Connect the receiver to gate or door opener with a 4C x 0.3 mm² (22AWG) cable. Cables are required but NOT included.*
- *The distance between the sensor and the gate or door opener control board should be within 20m (65ft.).*

5 COMPATIBILITY WITH OTHER BRANDS GATE OR DOOR OPENER

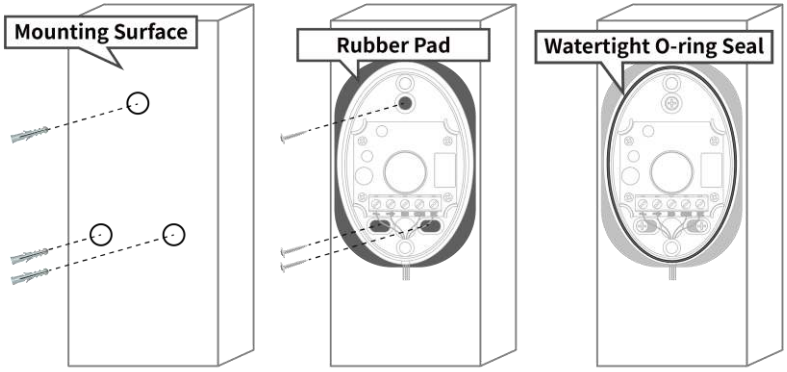
- Compatible with other brands gate or door opener whose control board accepts "Normal Open or Normal Close Dry Contact" signal.
- The sensor can be powered by the control board of the gate or door opener or by the external 12-24VDC or 12-24VAC power source.

6 INSTALL THE PHOTOCELL SENSOR

- Mount the sensors at least 20cm (8") above the ground.
- Place the receiver on the gate or door opener control board side, directly facing the emitter.
- Vertically install the sensors, ensuring that both the emitter and receiver are aligned with each other. If manual precise alignment is difficult, you can use a visible laser beam for assistance.
- Sensing range may be affected in extreme weather conditions, the recommended distance between them is 3m to 14m (10ft. to 46ft.).
- Place the wires in PVC conduit and bury them underground for protection. Ensure the sensor's wire output is facing downward.



- Once the installation position is determined, drill mounting holes to match the holes on the sensors. Secure the sensors with the included screws. For better stability, it is recommended to place a rubber pad (not included) between the sensor and the mounting surface.

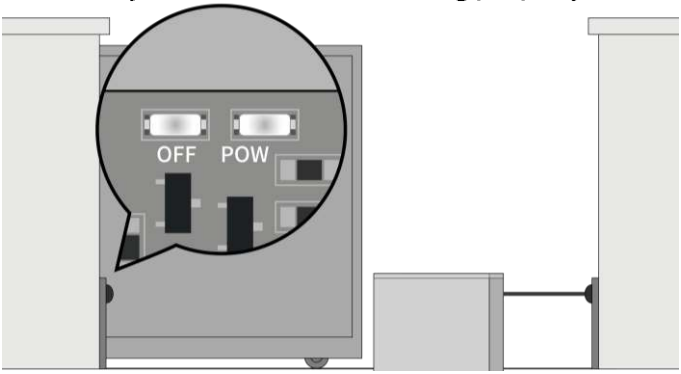


Note: *Attach the included watertight O-ring seals to the sensors for waterproof protection.*

7 TEST BEAM OBSTRUCTION

Note: *Set the control board to enable the photocell sensor function if needed (Refer to the Installation Manual specific to your gate or door opener model).*

- Turn on the power and operate the opener. Observe the two lights on the top of the photocell receiver: the POWER LED should be on, and the OFF LED should remain off with no obstruction during operation.
- To test the system, place an obstruction in the beam's path. If the OFF LED turns on and the gate or door stops or reverses (please note that the obstruction reaction depends on the opener's control board), the sensor is correctly installed and functioning properly.



Feedback & Review

Your comments and suggestions are important to us as they help us provide the best possible service. Should you have any need to contact us, the info below will help you get in touch:

TOPENS Website

www.topens.com

Contact Us:

E-mail: support@topens.com

Kindly include your purchase channel, order #, gate information, issue description and your contact information. All your concerns will be replied within 24 hours.

Tel: +1 (888) 750 9899 (Toll Free USA & Canada)